

REMARKS/ARGUMENTS*Claim Rejection 35 U.S.C. 102*

The Examiner rejected claims 1 to 4 and 6 to 26 under 35 U.S.C. 102 as allegedly being anticipated by Voisin (U.S. Patent 6,537,601). The Applicant draws the Examiner's attention to the claims presently amended and submits that claims 1 to 4 and 6 to 26 are patentable pursuant to 35 U.S.C. 102.

As the Examiner states, Voisin teaches a process of applying high pressure to shellfish. The process utilizes pressures from 10,000 psi to 60,000 psi. Additionally, the pressure is applied for 1 to 15 minutes at an elevated temperature range of 50 and 130 degrees Fahrenheit.

The process disclosed in Voisin expressly relates to a process for destroying bacteria in shellfish and to a method of shucking molluscan shellfish. At column 1, lines 22 through 25, the following statement is found:

“In recent years, considerable attention has been paid in the media to tragic results of consumption of raw oysters where the individuals became infected with life threatening pathogenic organisms.”

Further, commencing at column 4, line 66, the following statement is found:

“It is, therefore, an object of the present invention to provide a process for reducing or elimination of pathogenic organisms, from raw molluscan shellfish, such as oysters, clams and muscles.”

At column 5, line 25, Voisin describes using a combination of high temperature, time and pressure in order to effect elimination of pathogens in raw seafood products.

At column 6, Voisin provides specific working examples wherein pressures of 50,000 psi were applied for 5 minutes in order to effect elimination of bacteria. A longer period of 10 minutes was used at 40,000 psi in order to effect elimination of bacteria.

At column 7, Voisin provides a working example of use of 25,000 psi for 15 minutes.

By way of contrast, the present invention does not relate to elimination of pathogens in raw shellfish meat. In fact, the combination of pressure and time period used in the present application is intended to preserve the texture, flavour and appearance of raw meat and is not intended to achieve elimination of pathogens. More specifically, it is a goal of the present invention to ensure that lobsters are exposed to pressure for a period of time sufficient to effect detachment of the meat from the shell, but without causing changes to the texture, flavour or appearance of the meat.

Voisin does not disclose the combination of pressure, time period and temperature of currently amended claim 1. The majority of the examples provided by Voisin utilize pressure for periods of 5, 10 or 15 minutes. A shorter period of 3 minutes at 43,000 psi was used, however in this example the temperature was increased to 95 degrees Fahrenheit (see column 7, line 63). In order to achieve elimination of pathogens in 1 minute, Voisin discloses applying pressure of 43,000 psi for 1 minute at 120 degrees Fahrenheit. Although Voisin does describe use of low pressures in the range of 10,000 psi and 25,000 psi, these pressures are only used in combinations with very long time periods of 10 minutes to 15 minutes.

Furthermore, Voisin does not teach or suggest the use of pressure to effect detachment of shells of lobsters. At column 7, line 26, Voisin describes an unexpected phenomenon during experiments with raw oysters. Specifically, the oyster adductor muscle connective tissue attachment at the shell denatured to gel at pressures as low as 25,000 psi and a treatment time of 15 minutes. Voisin only describes observing this phenomenon in oysters. He does not describe detachment of shells of crustaceans (such as lobsters).

As the Examiner will appreciate, molluscan shellfish, and specifically oysters, are bivalve organisms having hard shells consisting of two halves. Molluscan shellfish differ significantly from crustacean shellfish in their anatomies. Unlike molluscans, the bodies of crustacean shellfish are attached to the shell continuously along the body of the animal. Furthermore, the attachment mechanism of the shell differs in crustacean shellfish from the attachment mechanism

of bivalve mollusks. Bivalve mollusks are attached to their shell at discrete points called adductor muscles. By way of contrast, the shell of a crustacean is attached to the body of the animal by way of continuous series of pores which are distributed evenly over the surface of the shell. These pores extend through the shell and into the muscle tissue of the body, resulting in a complex matrix of pore invaginations into the body. Further, structures known as hemidesmosomes serve to join muscle attachment fibres to the outer cuticle of the shell. Accordingly, the shell of the crustacean is affixed securely to the animal all across its body. Prior to the present invention, it was virtually impossible to detach the meat of a lobster from its shell in an uncooked state without resulting in damage to the meat.

The inventors of the subject application have surprisingly found that detachment of shells from crustacean shellfish can be achieved by applying high pressure to the animal for a short period of time at ambient temperature. For example, Example 1 of the disclosure describes exposure of lobsters to pressures of 25,000 and 50,000 psi. At 25,000 detachment of shells was achieved in 120 seconds. At 50,000 detachment of shells was achieved in 40 seconds. The Applicant submits that nowhere does Voisin teach or suggest that exposing lobsters to high pressures for brief periods of time would result in complete detachment of the shells. In fact, Voisin teaches that extended exposure to high pressure is required to denature the adductor muscles of bivalve mollusks, which are different organisms.

Given that Voisin fails to teach or suggest the presently claimed process for effecting detachment of the shells of lobsters, the Applicant submits that claims 1 to 4 and 6 to 26 are not anticipated by Voisin and requests reconsideration.

Claim Rejection 35 U.S.C. 103

The Examiner rejected claim 3 under 35 U.S.C. 103(a) as being unpatentable over Voisin. The Examiner asserts that pressure levels above 60,000 psi are considered to be structurally equivalent to the pressure range taught by Voisin. Former claim 3 has been cancelled. Reconsideration is requested.

In view of the foregoing, early favourable consideration of this application is earnestly solicited.

Respectfully submitted,

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